# Falcon Refinery Superfund Site Ingleside San Patricio County, Texas TXD 086 278 058

Monthly Progress Report # 65
September 2011

## **Prepared for**

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Prepared by

**OTRC** 

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October 7, 2011

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#### 1.0 INTRODUCTION

This sixty-fifth Monthly Progress Report is submitted in accordance with the Falcon Refinery Site Administrative Orders on Consent for Removal Action and Remedial Investigation / Feasibility Study between the U.S. Environmental Protection Agency (U.S. EPA) and National Oil Recovery Corporation (NORCO).

This Monthly Progress Report and subsequent reports will address activities associated with both of the orders.

The next monthly progress report, covering October, 2011 will be submitted on or before November 10, 2011.

#### 2.0 COMPLETED ACTIVITIES

#### 2.1 Removal Action Activities

During September rainwater, that had entered the tanks through holes in the roofs of the tanks and came in contact with sludge in the bottoms of the tanks in Tanks 10 and 30 (Figure 1), continued to be transferred into Tank 26. By moving the liquid to Tank 26 the remaining tanks that contained waste can be cleaned using the approved addendum to the Removal Action Work Plan. Estimates indicate that after the transfer there are 1.3 million gallons of rainwater in Tank 26.

Results of the sludge characterization (Appendix 1) following the transfer of rainwater from the tanks indicated that the sludge required thermal recycling or destruction. To minimize the amount of sludge vacuum trucks have been used to remove as much water waste as possible from the sludge.

A permit to discharge the rainwater via irrigation from Tank 26 to the vacant field on the southwestern portion of the refinery property was submitted to the TCEQ during August 2011. The TCEQ requested additional information and disagreed with the provide characterization of the depth to groundwater. Despite the use of actual depth to groundwater data, obtained during Phase I of the RI/FS Field Sampling Plan, the TCEQ chose to rely upon generalized depth to groundwater data form Soil Conservation maps. To further prove the depth to groundwater five borings were drilled and similar to the data provided in the Land Discharge Application the depth to groundwater ranged from 7.2 feet to 11.1 feet below ground surface (Figure 2). Using old maps the TCEQ had concluded that groundwater was from 0.0 to 0.5 feet.

Results of the additional sampling will be provided to the TCEQ during the first week of October. Prior to any discharge of rainwater the water will be passed through activated carbon, placed into a tank and sampled to ensure that no contaminants are discharged.

During September Tanks 2, X-1, X-2 and X-3 were cleaned and removed from the site. The contents of Tanks 17 through 24 were characterized and Tank 18 was cleaned and removed. During October Tanks 17 and 19 through 24 will be cleaned and removed. To facilitate the removal of Tanks 17 through 24 a small building on the property was relocated.



Cleanout of Tank 27 is nearly complete and the cleanout will be completed during October.

During the month representatives of the General Land Office visited the site to inspect the tanks.

To date a total of approximately 7,774,721 gallons of hazardous waste have been removed from all of the above ground tanks and disposed via deep well injection at Texas Molecular.

Prior to the beginning of liquid waste disposal in October 2004, the volume of waste in the above ground storage tanks was measured at 6,844,094 gallons. Apparently due to holes in the tops of the tanks the volume of waste has increased due to rainfall, since more waste has been disposed of than was originally measured.

A compilation of hazardous liquid waste disposal is included as Table 1.

#### 2.2 Remedial Investigation / Feasibility Study (RI/FS)

During September 2011 the EPA provided NORCO an Agreed Order for Resumption of Remedial Investigation and Feasibility Study at the Falcon Refinery Superfund Site, Ingleside, San Patricio County, Texas.

Access agreements have been sent out to adjacent land owners and land owners of background sampling locations. Additionally meetings were held with representatives of San Patricio Count and the City of Ingleside to obtain access on municipal and county right-of-ways.

#### 3.0 CHANGES MADE IN THE PLANS DURING THE REPORTING PERIOD

An updated project schedule was provided to the EPA during September. Also updated Human Health and Ecological Screening Levels were submitted. The screening level tables also included updated

#### 4.0 COMMUNITY RELATIONS

The EPA has developed a web site to display information about the Removal Action and RI/FS activities. Information can be found by going to www.epaosc.net and selecting web sites, then Region 6 and then the Falcon Refinery Site.

#### 5.0 CHANGES IN PERSONNEL DURING THE REPORTING PERIOD

None during September.

#### 6.0 LIST OF PROJECTED WORK FOR THE NEXT TWO MONTHS

#### 6.1 Removal Action Work projected for the next two months includes:

- Implement Removal Action Work Plan Addendum No.3;
- Dispose sludge at US Ecology and clean out 17, 19 through 24, 10 and 30;



- Removal of Tanks 17, 19 through 24; and
- Continued site maintenance.

#### 6.2 RI/FS Work projected for the next two months includes:

- Implementing the Phase II Field Sampling Plan, including:
- · Obtaining access agreements from land owners for offsite sampling locations; and
- · Contracting for drilling and analytical testing.

#### 7.0 LABORATORY / MONITORING DATA

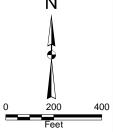
None during September.



# **FIGURES**







FALCON REFINERY
INGELSIDE, SAN PATRICIO COUNTY, TEXAS

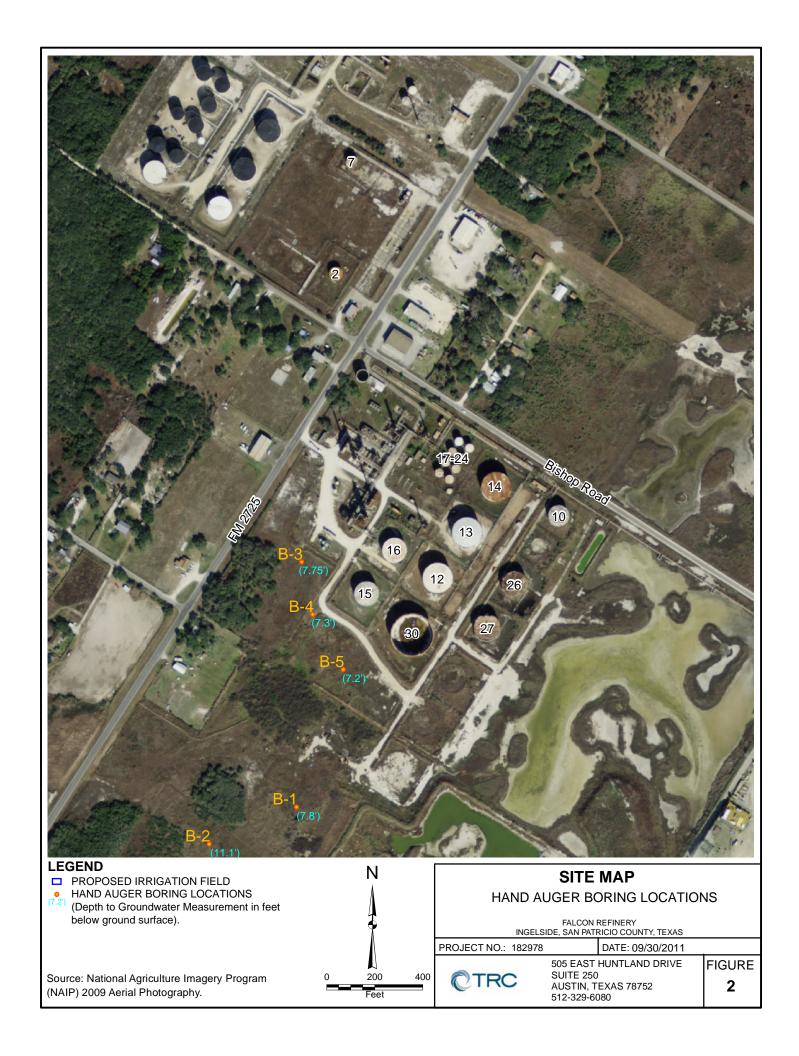
PROJECT NO.: 182978

DATE: 4/29/2011

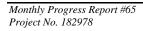
**CTRC** 

505 EAST HUNTLAND DRIVE SUITE 250 AUSTIN, TEXAS 78752 512-329-6080 FIGURE 1

Source: National Agriculture Imagery Program (NAIP) 2009 Aerial Photography.



# **TABLES**





**Table 1. Hazardous Liquid Waste Disposal** 

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
Texas Molecular	6901 Greenwood			<b>D</b>
Corpus Christi	Dr. Corpus	004 050 0004	TVD000004040	Robert
Services, LP	Christi, TX	361-852-8284	TXR000001016	Rodriguez
RQ, HAZARDO	DUS WASTE LIQUID N		, III (D007, D008, D0	)18) 
	Month	Volume (gal)		
	October-04	53,832		
	November-04	734,763		
	December-04	879,158		
	January-05	783,881		
	February-05	551,444		
	March-05	565,489		
	April-05	445,107		
	May-05	471,311		
	December-05	42,550		
	January-06	58,740		
	February-06	59,140		
	March-06	0		
	April-06	29,371		
	May-06	59,018		
	June-06	97,151		
	July-06	118,743		
	August-06	148,509		
	September-06	109,908		
	October-06	86,665		
	November-06	140,498		
	December-06	85,813		
	January-07	118,541		
	February-07	107,985		
	March-07	152,493		
	April-07	121,588		
	May-07	150,368		
	June-07	87,900		
	July-07	143,485		
	August-07	94,727		
	September-07	0		
	October-07	50,298		
	November-07	151,227		
	December-07	112,285		
	January-08	119,353		
	February-08	88,777		
	March-08	60,913		
	April-08	18,695		
	May-08	25,349		
	June-08	0		
	July-08	250,475		

August-08	331,248	
September-08		
October-08	0	
November-08	0	
December-08	0	
January-09	0	
February-09	0	
March-09	0	
April-09	0	
May-09	0	
June-09	0	
July-09	0	
Total	7,774,721	

Table 2. Metal Disposal

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT			
Commercial Metal Company	4614 Agnes St Corpus Christi, TX	361-884-4071	None	David			
	RECYCLED	METAL					
	Month	Volume (lbs)					
	October-04	0					
	November-04	16,820					
	December-04	19,640					
	January-05	31,380					
	February-05	0					
	Total 67,840						
	FIRE EXTING	JISHERS					
	Month	Quantity					
	December-04	10					
	Total	10					
	Industrial Fire & Safety Co. removed 10 fire extinguishers from the job site. The powder was disposed of properly and the metal went to salvage.						

Table 3. Contaminated Soil and Oily Debris Disposal

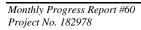
DISPOSAL FACILITY		ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
					Glenda
U.S. Ecology Texa	as L.P.	Robstown, TX	361-387-3518	TXD069452340	Felkner
	PETROL	EUM CONTAMINAT	ED SOIL AND OIL	Y DEBRIS	
		Month	Volume (cy)		
		October-04	0		
		November-04	0		
		December-04	40		
		January-05	0		
		February-05	0		
		Total	40		
RQ, HAZARDO	US WAS	STE SOLID, N.O.S., L	EAD, 9 NA3077, I	PGIII (OILY SLUDGI	E AND SOIL)
		Month	Volume (cy)		
		February-05	15		
		Total	15		

Table 4. Oil and Filter Disposal

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
Texas Molecular	6901 Greenwood			
Corpus Christi	Dr Corpus			Robert
Services, LP	Christi, TX	361-852-8284	TXR000001016	Rodriguez
	RECYLCED OIL	AND FILTERS		
	Month	Volume (gal)		
	January-05	403		
	February-05	0		
	Total	403		
DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
Midstate Environmenta	I 2203 Tower Road			
Services, LLC	Robstown, TX	361-387-2171	TXR000051227	Lloyd Cooke
	RECYLCED OIL	AND FILTERS		
	Month	Volume (gal)		
	January-05	16,651		
	February-05	0		
	Total	16,651		

# **APPENDIX 1**

**US Ecology Waste Characterization** 





TO THE TAX STREET	ogy	US Ecology Ne	553-2125	Fax (361) 387-0		Profile	#:	
COLCOR	8		aho (Grand View)					
A. CUSTOMER INFORMA	TION	*Waste as ship	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUM	ustrial NO	V - Industri	al *(Texas c	ustomers only	)
		COVERY COR		Check if E		_	usiomers omy	
Facility Address : 1472	FM 2725	Carl Table	A Division of the last of the	Billing Compa		GAINCO,	INC.	
	ESIDE, TX 78	3362		Billing Addre		PO BOX 3	Data Sea of	
Mailing Address c/o: T	TRC Solutions	S		City/State/Zip		PORTLAN	D, TX 78374	
	. Huntland D	rive, Suite 250, A	Austin, Tx 78752	Billing Contac		THERESA		
Control Contro	en Halasz			Phone No.: (3		78 Fax No	o.: (361)777-09	971
Phone: 512-684-3103	- 22	512-329-8750		Email: TNIX		_		
NAICS#	CESQG [	sqg Lqg	EPA ID# TXD086278	058		State ID	31288	
B. SHIPPING INFORMATI US DOT Shipping Name	THE PLANT OF STREET WAS DON'T WHEN THE	S WASTE SOLI	D. N.O.S.		Latera II		2 Hazard Clas	. 9
3. UN/NA # NA3077	11112111000	4. Packaging Gro		s.RQ	1 lb	MI-AII	_ 2 Hazaid Clas	3
6. Container Type: Bulk	Totas [	Pallet	Size TONS		Year	QTR	Month	
				7. Frequency.			AS NEEDEL	D
	ums Other		Quantity 700		1 Time	✓ Other	AS NEEDE	0
C. GENERAL MATERIAL  1. Common name for this was		TORY INFORM DE OIL TANK BO	MEDITED SQUEET STATE OF THE STA					
2. Process generating the mate	rial CLEA	NOUT AND RE	MOVAL OF SOLIDS					
3. Describe physical appearance	ce of waste	BROWN TO BL	ACK SOLID/SLUDG	WITH POTEN	ITIAL FOR	R SOME FRE	EE LIQUIDS	
4. Describe odor of waste:	None Sligh	ht Strong D	escribe OILY / HYDF	COCARBONS				
5. Knowledge is from: Lab				and the same of th	Is the wast	e restricted un	der EPA Land I	Disposal
Yes No Is the material	<500 PPMW	VOC as generated	1?	Restrictions (4	0 CFR 268	) If yes, plea	se complete LD	R form
Yes No Is the waste, or	r generating fa	cility, subject to re	egulation under 40 CFR	Part 61 Subpart	FF (Benzer	ne Rule) of NE	ESHAPS?	
If yes, complete form "attachn								
petroleum refineries or treaters				□ Was			ewater Deb	ric
✓ Yes No State waste coo		P603H	1	7 =	CONTRACTOR OF THE PARTY OF THE		water Den	
				Yes	✓ No	Alternative	standards for So	
I IYES IVINO CERCLA Reg	ulated (Superf	und) Waste	□ Yes ☑ N				standards for So ern: List in sect	oil?
Yes ✓ No CERCLA Reg			Yes 7	o Contains UH	Cs/Constitu	uents of Conc	ern: List in sect	oil ? tion D
Yes No EPA Haz. W				Contains UH Has the waste	Cs/Constitu	uents of Conceded after the ini	ern: List in sect itial point of ger	oil ? tion D
			Yes	Contains UH Has the waste Subpart XX	Cs/Constitute been treate (40 CFR 63	uents of Conceded after the initial (1980) Contract	ern: List in sect itial point of ger ols Required?	oil ?
			Yes	O Contains UH O Has the waste O Subpart XX O Exempt Was	Cs/Constitute been treate (40 CFR 63	uents of Conced after the initial 3.1080) Contract ist ref. 40 CF	ern: List in sect itial point of ger ols Required?	oil ? tion D neration?
Yes No EPA Haz. W	aste (list codes	K169	Yes V N Yes V N Yes V N Source Code G	O Contains UH O Has the waste O Subpart XX O Exempt Was G14 Fo	Cs/Constitute to been treated (40 CFR 63 tte: If yes, I form Code W	uents of Conceed after the initial (i.1080) Contractive ref. 40 CFI W603	ern: List in sect itial point of ger ols Required? R	oil ? tion D neration?
V Yes No EPA Haz. W  D. MATERIAL COMPOS	Vaste (list codes	K169 K169 K169 K169 K169 K169 K169 K169	Yes V M Yes V M Yes V M Source Code G  E. Does the waste e	O Contains UH O Has the waste O Subpart XX O Exempt Was G14 F6	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W	uents of Conceed after the initial (1980) Contractive ref. 40 CFI W603	ern: List in sectitial point of ger ols Required?  R Mgt. Method H	oil ? tion D neration?
D. MATERIAL COMPOS (Range Total > or = 100%) Value	SITION (Phy	K169  Vsical/Chemical)  CLP TOTALS	Yes Y N Yes Y N Yes Y N Source Code G  E. Does the waste e Yes Y No Oxidia	Contains UH Has the waste Subpart XX Exempt Was G14 F6 Chibit or contae	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the followers No.	uents of Conce ed after the ini 3.1080) Contr ist ref. 40 CFI W603 owing:	ern: List in sectitial point of ger tols Required?  R  Mgt. Method H	poil ? tion D neration? H050
D. MATERIAL COMPOS (Range Total > or = 100%) Validiculude additional sheets as necessary)	SITION (Phyues are Totypical value	k) K169  vsical/Chemical)  CLP  TOTALS  unit range	Yes Y No Explos	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains O Contains UH O Con	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the followers No. Yes No.	uents of Conceed after the initial and after	ern: List in sectitial point of ger tols Required?  R  Mgt. Method H	oil ? tion D neration?
D. MATERIAL COMPOS (Range Total > or = 100%) Validiculude additional sheets as necessary) CRUDE OIL TANK BOTTOM	SITION (Phyues are Totypical value)	vsical/Chemical) CLP TOTALS unit range % 90-100	Yes V No Organ  Yes V No Organ	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contae er	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the followers No. Yes No. No. Yes No. No.	uents of Conceed after the initial (1080) Control (	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  ess 32 des cyrophoric) React.	poil ? tion D neration? H050
D. MATERIAL COMPOS  (Range Total > or = 100%) Vali  (include additional sheets as necessary)  CRUDE OIL TANK BOTTOM	SITION (Phyues are Totypical values S 90 10	s) K169  vsical/Chemical)  CLP  TOTALS  unit range  90-100  0-10	Yes Y No Organ Yes Y No Shock	Contains UH O Has the waste O Subpart XX O Exempt Was G14 Fo  Chibit or contae er ive C Peroxide  Sensitive	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following Yes No	uents of Conce ed after the ini 3.1080) Contr ist ref. 40 CFI W603 owing:	ern: List in sectitial point of ger rols Required?  R Mgt. Method H  es 32 des cyrophoric) React.	poil ? tion D neration? H050
D. MATERIAL COMPOS (Range Total > or = 100%) Validiculude additional sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM	SITION (Phyues are Totypical values S 90 10 105	vsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contae er	Cs/Constitute been treated to CFR 63 te: If yes, I orm Code W in the following the constitute of the c	wents of Conceed after the initial and the ini	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  es 32 des Pyrophoric) React. Instable lated PCB Waste	poil ? tion D neration?  H050  ppm ppm
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM	SITION (Phyues are Totypical values S 90 10 105 5.1	vsical/Chemical)  CLP TOTALS  unit range  90-100  0-10  MG/KG  MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 Fo  Chibit or contae er ive	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following Yes No	uents of Conceed after the initial (1080) Contribute (1080) Contri	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  es 32  des  hyrophoric) React.  instable  ated PCB Waste  dedical/Infectious	poil ? tion D neration?  H050  ppm ppm
D. MATERIAL COMPOS  (Range Total > or = 100%) Vali  (include additional sheets as necessary)  CRUDE OIL TANK BOTTOM  WATER  BARIUM  CHROMIUM  LEAD	SITION (Phyues are Totypical value S 90 10 105 5.1 35.9	vsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contaer ive	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following Yes No	wents of Conceed after the initial and the ini	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  es 32  des  hyrophoric) React.  instable  ated PCB Waste  dedical/Infectious	poil ? tion D neration?  H050  ppm ppm
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY	SITION (Phyues are Totypical values S 90 10 105 5.1	vsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contae er	Cs/Constitute been treated to CFR 63 te: If yes, I orm Code W in the following the fol	wents of Conceed after the initial and the ini	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  ss 32 des Pyrophoric) React. Instable lated PCB Waste ledical/Infectious Gasses ded in USEPs WAC Add	boil ? tion D neration?  H050 ppm ppm
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE	SITION (Phyues are Totypical values S 90 10 105 5.1 35.9 2.06 10	si K169  vsical/Chemical)  CLP TOTALS  unit range  % 90-100  % 0-10  MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 Fo  Chibit or contae er ive	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	uents of Conceed after the initial (1080) Contributed of Conceed after the initial (1080) Contributed of Company (1090) Contributed of Company (1090) Compan	ern: List in sectitial point of ger rols Required?  R Mgt. Method H  R Mgt	poil ? tion D neration?  H050  ppm ppm ppm
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE	SITION (Phyues are Totypical value S 90 10 105 5.1 35.9 2.06 10 20	sical/Chemical) CLP TOTALS unit range 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG O-20 MG/KG 0-70	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide C Pero	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	wents of Conceed after the initial (1080) Contributed in the initial (1080) Contributed in the initial (1080) Contributed in the initial (1080) Compared in the initial (1080) Compressed of the initial (1080) Contributed in the initial (1080) Contributed i	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  R Mgt	boil ? tion D neration?  H050  ppm ppm ppm dendum
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE XYLENES	SITION (Phyues are To typical value S 90 10 105 5.1 35.9 2.06 10 20 35	si K169  vsical/Chemical)  CLP  TOTALS  unit range  % 90-100  % 0-10  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  O-20  MG/KG  0-220	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide C Pero	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	wents of Conce and after the initial and aft	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  Mgt. Method H  Ses 32  Les  Lyrophoric) React.  Instable  Lated PCB Waste  Ledical/Infectious  Gasses  ded in USEI's WAC Ad  Appendix III)  4  pH Range:	ppm ppm ppm dendum
PYes No EPA Haz. W  D. MATERIAL COMPOS  (Range Total > or = 100%) Validinal sheets as necessary)  CRUDE OIL TANK BOTTOM  WATER  BARIUM  CHROMIUM  LEAD  MERCURY  BENZENE  ETHYLBENZENE  KYLENES  TOLUENE	SITION (Phyues are To typical values S 90 10 105 5.1 35.9 2.06 10 20 35 20	vsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG 0-20 MG/KG 0-220 MG/KG 0-237	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide C Pero	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	wents of Conceed after the initial content of	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  R Mgt	boil ? tion D neration?  H050  ppm ppm ppm  to 10  ≤ 2  > 2, < 12.56
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE ETHYLBENZENE STOLUENE BENZO(A)ANTHRACENE	SITION (Phyues are To typical value S 90 10 105 5.1 35.9 2.06 10 20 35	si K169  vsical/Chemical)  CLP  TOTALS  unit range  % 90-100  % 0-10  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  MG/KG  O-20  MG/KG  0-220	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide C Pero	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	wents of Conceed after the initial content of	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  Mgt. Method H  Ses 32  Les  Lyrophoric) React.  Instable  Lated PCB Waste  Ledical/Infectious  Gasses  ded in USEI's WAC Ad  Appendix III)  4  pH Range:	ppm ppm ppm dendum
Yes No EPA Haz. W	SITION (Phyues are To typical values S 90 10 105 5.1 35.9 2.06 10 20 35 20 5 2	sysical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG 0-20 MG/KG 0-220 MG/KG 0-137 MG/KG 0-16 MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or contai	Cs/Constitute been treated (40 CFR 63 te: If yes, I orm Code W in the following the fo	uents of Conceed after the initial and after the initial and a control of the con	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  Mgt. Method H  Ses 32  Lies  Pyrophoric) React.  Instable Liedical/Infectious  Gasses  ded in USEPs WAC Ad  Appendix III)  4  pH Range:	H050  H050  ppm ppm ppm  to 10  ≤ 2  > 2, < 12.50
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE ETHYLBENZENE ETHYLBENZENE STOLUENE BENZO(A)ANTHRACENE BENZO(G,H,I)PERYLENE G, GENERATOR'S CERTIFICITY Und	SITION (Phyues are Totypical values S 90 10 105 5.1 35.9 2.06 10 20 35 20 5 2 FICATION:	sysical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG 0-20 MG/KG 0-220 MG/KG 0-137 MG/KG 0-16 MG/KG MG/KG MG/KG  MG/KG 0-16 MG/KG MG/KG MG/KG 0-16 MG/KG MG/KG MG/KG 0-16 MG/KG MG/KG MG/KG	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Contai	Cs/Constitute been treated (40 CFR 63 te: If yes, I form Code W in the following the f	uents of Conceed after the initial and after	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  Mgt. Method H  Ses 32  Lies  Pyrophoric) React.  Instable Liedical/Infectious  Gasses  ded in USEPs WAC Ad  Appendix III)  4  pH Range:	H050  H050  ppm ppm ppm  to 10  ≤2  >2, <12.56
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE ETHYLBENZENE ETHYLBENZENE STOLUENE BENZO(A)ANTHRACENE BENZO(G,H,I)PERYLENE G. GENERATOR'S CERTIFICATION of the statement: I certify under the statement of the strue, according to the structure of the struc	SITION (Phyues are To typical values S 90 10 105 5.1 35.9 2.06 10 20 35 20 5 2 FICATION:	wsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG O-20 MG/KG 0-220 MG/KG 0-137 MG/KG 0-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide Sensitive  C Peroxide Sensitive  C Peroxide C C C C C C C C C C C C C C C C C C C	Cs/Constitute been treated (40 CFR 63 te: If yes, I form Code W in the following the f	wents of Conceed after the initial content of	ern: List in sectitial point of ger tols Required?  R Mgt. Method H  Mgt. Method H  Ses 32  Lies  Pyrophoric) React.  Instable Liedical/Infectious  Gasses  ded in USEPs WAC Ad  Appendix III)  4  pH Range:	H050  H050  ppm ppm ppm  to 10  ≤2  >2, <12.56
D. MATERIAL COMPOS (Range Total > or = 100%) Validinal sheets as necessary) CRUDE OIL TANK BOTTOM WATER BARIUM CHROMIUM LEAD MERCURY BENZENE ETHYLBENZENE ETHYLBENZENE EXYLENES TOLUENE BENZO(A)ANTHRACENE BENZO(G,H,I)PERYLENE G. GENERATOR'S CERTIFICATION Certification Statement: I certify und that all information provided is true, according to the control of the con	SITION (Phyues are To typical values S 90 10 105 5.1 35.9 2.06 10 20 35 20 5 2 FICATION:	wsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG O-20 MG/KG 0-220 MG/KG 0-137 MG/KG 0-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide Sensitive ORAD**  ORACTERISTICS OF (if <140°F) Contains UH ORAD*  ORACTERISTICS OF (if <140°F) Contains UH ORACTERISTICS OF (if <140°F) Contains UH ORACTERISTICS OF (if <140°F) Contains UH ORACTERISTICS OF (if <140°F) ORACTERISTICS OF (if <	Cs/Constitute been treated to CFR 63 te: If yes, I form Code W in the following the fo	wents of Conceed after the initial and the ini	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  Mgt. Method H  Liss 32  Lies  Pyrophoric) React. Instable Listed PCB Waste Liedical/Infectious  Gasses Listed March of the listed	boil ? tion D neration?  H050  ppm ppm ppm  to 10  ≤ 2  > 2, < 12.56
D. MATERIAL COMPOS (Range Total > or = 100%) Validination of the composition of the compo	SITION (Phyues are To typical values S 90 10 105 5.1 35.9 2.06 10 20 35 20 5 2 FICATION:	wsical/Chemical) CLP TOTALS unit range % 90-100 % 0-10 MG/KG MG/KG MG/KG MG/KG MG/KG O-20 MG/KG 0-220 MG/KG 0-137 MG/KG 0-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O-16 MG/KG O-16 MG/KG MG/KG O-16 MG/KG O	Yes	Contains UH O Has the waste O Subpart XX O Exempt Was G14 For Chibit or contains or Peroxide Sensitive ORAD** ORACTERISTICS OF (if < 140°F) Oracle of the contains of the cont	Cs/Constitute been treated to CFR 63 te: If yes, I form Code W in the following the fo	wents of Conceed after the initial content of	ern: List in sectitial point of ger ols Required?  R Mgt. Method H  Mgt. Method H  Liss 32  Lies  Pyrophoric) React. Instable Listed PCB Waste Liedical/Infectious  Gasses Listed March of the listed	boil ? tion D neration?  H050  ppm ppm ppm  to 10 ≤2 >2, <12.5



## BENZENE WASTE OPERATIONS 40 CFR SUBPART FF (§§61.340 to 61.358)

GI	ENERATOR NAME: National Oil Recovery Corp. EPA ID #: TXD086278058
W	ASTE NAME: Crude Oil Tank Bottoms
1.	Facility Producing Waste:  Petroleum Refinery (SIC 2911)  Chemical Mfg. (SIC 2800 thru 2899)  Coke By-Product Recovery Plant (SIC 3312)  TSDF handling benzene-containing hazardous waste from one of the above facilities  None of the above - no need to continue
2.	Is the waste a RCRA hazardous waste per 40 CFR 261? ✓ Yes No (If yes, complete questions 3-6 1)
3.	What is the facility's Total Annual Benzene quantity from facility waste?
	✓ <1 Megagram (<2,204 lbs.)
4.	The flow-weighted annual average benzene content of this waste is: 10 ppmw 2  The estimated range is: 0 to 20 ppmw.
	Or: Waste is remediation material or process unit turnaround waste and per generator knowledge or test data benzene concentration is: ppm.   The estimated range is: ppm.
5.	What is the water content percentage of the waste by weight? 10 %
6.	Is the waste subject to the requirements for benzene waste operations under 40CFR, Subpart FF? ✓ Yes ☐ No (Controls required at off site disposal facility)
7.	Optional questions / comments:
	Facility is operating under a waiver of compliance under 40CFR §61.10?
	Is the waste remediation exempt?
	Other situation or comments:
	Has the waste been treated prior to shipment?
	☐ No treatment ☐ Yes, >99% removal of benzene ☐ Yes, <10 ppmw benzene
	ertify that the information concerning the waste offered for disposal is true and correct.  nature: Asey Wils Agast for Morco   Generator Name: National Oil Recovery Corp.
Pri	nted Name: Casey Wills Date: 8/13/11
1. (	Only hazardous waste is subject. 40 CFR §61.340 (b)

3. 40 CFR §61.355(c)(3)

# **US Ecology Land Disposal Restriction Form**

GENE	RATO	R: _	National Oil Recovery Corp.	EPA I.D. NUMBER: TXD086278058	
WAST	ESTR	EAM	or PROFILE NUMBER: 09-007-	MANIFEST DOC. NOLINE NO	
WAST	E IS A	:	☐ WASTEWATER ☐ NON-WA	STEWATER DEBRIS	
NOTIF	ICATIO	ON F	REQUENCY: ONE TIME	REQUIRED WITH EACH SHIPMENT	
EPA W	ASTE	COD	ES (from 40 CFR 268.40): K169		
UNDE	RLYIN	G HA	ZARDOUS CONSTITUENTS (from 40 CFR 26	3.48): None	
	A.	П	Restricted Waste Meets Treatment	Standards (40 CFR 268.7(a) (3))	
	5,31	_		e treatment standards in 40 CFR 268.40 or Alternative LDR treatment standards	
			for contaminated soil 40CFR268.49 and can	be landfill disposed without further treatment. I have attached all supporting	
			analytical data, where available.  I certify under penalty of law that I personal	lly have examined and am familiar with the waste through analysis and testing	
				ort this certification that the waste complies with the treatment standards	
				lieve that the information I submitted is true, accurate and complete. I am r submitting a false certification, including the possibility of a fine and	
	B.		<b>Restricted Waste Treated To Treat</b>	ment Standards (40 CFR 268.7(b) (I) & 268.7 (b) (2))	
			The treatment residue, or extract of such residues treatment residues or extract meet all applicable	ue, or the restricted waste identified above has been tested to assure that the e treatment standards in 40 CFR 268.40 and/or performance standards in 40 CFR	
			268.45. I have attached all supporting analytic	al data, where available.	
				ly have examined and am familiar with the waste through analysis and testing ort this certification that the waste complies with the treatment standards	
				lieve that the information I submitted is true, accurate and complete. I am submitting a false certification, including the possibility of a fine and	
			imprisonment.	submitting a raise certification, including the possibility of a fine and	
	C.			Based Treatment Standards (40 CFR 268.7(b) (4))	
			of the treatment process used to support the	ly have examined and am familiar with the treatment technology and operation is certification and that based on my inquiry of those individuals immediately	
				believe that the treatment process has been operated and maintained properly is specified in 40 CFR 268.40, without impermissible dilution of the prohibited	1
			waste. I am aware that there are significant	penalties for submitting a false certification, including the possibility of a fine	
Ŋ	D.	П	and imprisonment.  Restricted Waste Decharacterized	But Requires Treatment For UHC (40 CFR 268.9)	
	υ.		I certify under penalty of law that the waste has	been treated in accordance with the requirements of 40 CFR 268.40 to remove the	
				waste contains Underlying Hazardous Constituents (UHC) that require further dards. I am aware that there are significant penalties for submitting a false	
		_	certification, including the possibility of a fine a	nd imprisonment.	
	E.	$\checkmark$	Restricted Waste Subject To Treat The restricted waste identified above must be	nent (40 CFR 268.7(a) (2)) reated to the applicable treatment standards in 40 CFR 268.40, or treated to comply	
			with applicable prohibitions set forth in Part 26	3.32 or RCRA Section 3004(d). I have attached all supporting analytical data, where	
1	F.	П	available.  Hazardous Debris Subject To Trea	ment (40 CER 268 45)	
		_		e treated to the alternative treatment standards in 40 CFR 268.45.	
(	G.			ance or Extension (40 CFR 268.7(a) (4))	
			This restricted waste identified above is subject 268.6 or a nationwide capacity variance under	to a case by case exemption under 40 CFR 268.5, an exemption under 40 CFR Subpart C of 40 CFR 268, and is not prohibited from land disposal. LDR prohibitions	
			become effective on (date) for this re	stricted waste. The corresponding treatment standard(s) are promulgated in 40 CFR	
9	H.	П	268.40. I have attached all supporting analytic Restricted Waste Managed In A "L		
		_	I certify under penalty of law that I personal	y have examined and am familiar with the waste and that the lab pack contains	5
				ppendix IV to 40 CFR Part 268 and that this lab pack may be sent to a liternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware	
		2	that there are significant penalties for subm	itting a false certification, including the possibility of a fine and imprisonment.	
				ears on this form, and appended documents, is true and s to be managed in accordance with 40 CFR 268. My	
			hased on nersonal examination of	the information submitted or is based on my inquiries of those	е
			sponsible for obtaining the informa	ion. carbeco)	,
Autho	orize	d Sig	gnature CAZEY WMS (A	ion.  Sent for Title Prot Mge Date 8/13	/11

UHC list from 40 CFR Part 268.48 available upon request

# THERMAL SUPPLEMENT FORM





					US Ecology Texas		Waste Name:	e: CRUDE OIL TANK BOTTOMS		SMOTTC
U	<b>USEcology Texas</b>			S	Phone (361) 387-3518		Generator : National		Oil Recovery Corp.	
	av .				Fax	(361) 387-0794				
			Ph	ysical (	Compos	sition of Waste				
	WASTI	E PRO	PERTIES (wet	weight	basis)		PRIMARY COMPO		TY	PICAL %
							Wat	er	10	
	PHYSICAL STA	ATE:		Bt	u/Lb	% of ASH	Soli	ds	80	
✓ Solid	Liquid Single Pha	ased	Multi Phased				Organics	/ TPH	10	
OTHE	R WASTE CONSTITUEN	NTS (p	pm)			未正线上独筑				
Chlorine		0	□Yes	✓ No	Non-Fria	able Debris Material >	2-inch size		% (vol)	
Fluorine		0	□Yes	✓No	If Cataly	st, is material self heat	ing as shipped?		Control of the contro	
Bromine		0	□Yes	✓No					% (wt.)	
Sulfides (7	Total)	32	□Yes	✓No						
Sulfur			Yes	✓No	Fuel Oxy	genates MTBE	Ethanol	Other		ppm (wt.)
Chlorinate	d aliphatic hydrocarbons	0	Yes	✓No	Does the	waste contain surfacta	11700			0
	oil bearing waste from F Reference: 40 CFR 261 analytical data or genera	.6 (a) (.	3) (iv) C, TCEQ 3.	35.24, 40	CFR 112.	2	A STATE OF THE PROPERTY OF THE PARTY OF THE		☑ Yes	□No
Name:	Casey Wills			Signature	· 1 m	11/1/11/11	AGOW! TOP	Detail	XIIAI	11

Eff: 07-26-10

### SECTION D: MATERIAL COMPOSITION (CONTINUED)

Generator NATIONAL OIL RECOVERY CORP.

WasteDescription CRUDE OIL TANK BOTTOMS

Constituent	TypicalValue	Unit	Range
CHRYSENE	25	MG/KG	0-40
FLUORENE	22	MG/KG	0-30
NAPHTHALENE	50	MG/KG	0-300
PHENANTHRENE	40	MG/KG	0-200
PYRENE	25	MG/KG	0-30
		-	
		V	
		-	

Signature	CARRY Wa	Ils (AGENT FOR MORCO)
PrintedName:	Casey Wills	
Title:	PROJ MGR	Date: 8/13///